<b>Work Orde</b> May-01-13 7:08		0953			*100	1953*							Page	1
Item ID: Revision ID:	D4011-5				Accept	*N900	040	100	)*	Setup	Start	*N	S1*	
	Clamp, Short										Stop	*N	S2*	
Required Date:	4/30/13 4/30/13	Start Qty Req'd Qt		*12* *12*		Cust Item ! Customer:	ID:							
Reference:							· · · :			Run	Start	***	D4*	
Approvals:	Process Pla	in:M_L	J	Date: 13-05-03	Tooling:	D	ate:					1/7	R1*	
	QC:			Date:	SPC (Y/N):	D	ate:				Stop	*N	R2*	
Sequence ID/ Work Center ID	)	Operation Description			Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Rej Qty		Reject Number	Insp. Stamp	A
Draw Nbr	Rev	ision Nbr	i											
D4011	В								**					
-100					0.00		<del></del>							
*100*		PURCHASI	NG						2.		0-		Ac	13.07.
Waterjet	•		Memo		0.00						0—		/	,,,,,,
FLOW CNC Waterje	et		1-Cut as pe											
304,080			Dwg Rev:_ Prog Rev:_	3										
			2-Deburr if	necessary										
3														

0.00

0.00

QC2- Inspect parts off machine FAI/FAIB

Memo

Quality Control

											DQA:	Date:	
NCR:	⁄es	/ No				WORK ORDER NON-C	CON	NFORM	AANCE / UPDATE				
	-					<u> </u>					QA Closed:	Date:	
						DISPOSITION			AC	GAINST DEF	PARTMENT	PROCESS	
Work Orde	er: -					<b></b>	,		Children Con-			Water Jet	Engineering
	. 1					Rework	┦ ┃		<del></del>	nall Fab	Dro	d. Eng. Coor.	Quality
Part I	۷O. <u>-</u>					Scrap Use-as-is	1		~ <b>—</b>	inishing		e/Packaging	Other
NCR I	No.					Work Order Update	1			nposite	1166/3101	Supplier	1 0""-
NCK	<b>V</b> O					Work Order Opdate	ן נ		carge rab	"bosice		34pme	لــا ا
Root					Descri	ption of work order update	1	nitial	Action		Sign &		
Cause		Date	Step	Qty	,	or Non-conformance	Ch	ief Eng	Description	1	Date	Verification	QC Inspector
Doc/Data													
Equip/Tooling			į										
Operator							ŀ						
Material					]								
Setup													
Other				ļ			ļ						
Process													
Supplier	Ш								i				
Training	Ш												
Unapproved				<u></u>			<u> </u>						<u> </u>
							AUL	T CATE	GORY				
Landi					_	General		1		_	l		٦.
	-	Bending				Bend	<u> </u>	Grain		<u> </u>	Ovalized	_	Pressure/Forced
	$\vdash$	Centre No	ot Conce	ntric to	o/s	BOM/Route	<u> </u>	Hardwa			Over/Under	F	Temperature/Cure
	-	Cracks			<u> </u>	Broken/Damaged	<u> </u>	4 '	ion Incomplete	<u> </u>	Part Incorre	<del> </del>	Weld
	-	Crushed/	Crimped	-	_	Burrs	$\vdash$	4	ions Incomplete/Unclea	ar	Part Lost/M	issing	Wrong Stock Pulled
	-	Cuffs			_	Contamination	<u> </u>	Mainte		<u> </u>	Part Moved		
l	1 1	Heat Trea	t t			Countersink	1	Mislahe	aled	1	Positioned \	Nrong	

Misread

Out of Calibration
Out of Sequence

Outside Dimensions

Offset

Power Loss/Surge

Other

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Inspection Strip in Tube

Torque Waves in Extrusion

Cut Too Short

Drill Holes

Drawing

Finish

Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Work Order ID  May-01-13 7:08:53 AM	100953	**	100953*				Page 2
Item ID: D4011-5 Revision ID: Item Name: Clamp, Sh		Accept	*N900	<u>)</u> 040100	<b>)*</b> Setu	ıp Start Stop	*NS1*
Start Date: 4/30/13 Required Date: 4/30/13 Reference:	Start Qty: 12.00 Req'd Qty: 12.00	*12* *12*	Cust Item Customer:			·	INS.
÷. <sup>7</sup>		Tooling:		Date:	Rur	Start Stop	*NR1* *NR2*
Sequence ID/ Work Center ID	Operation Description	Set U Run I	p/ Tool ID	Tool # Plan Code			Reject Insp. Number Stamp
*120 *120* QC Quality Control	QC8- Inspect parts - second check  Memo	0.00	3723		12		
130	Form as per dwg	0.00					S/, -
*130* Brake NC Brake NC	NC BRAKE  Memo	0.00			12		
140	QC5- Inspect part completeness to	step on W/O 0.00	27		10		
*140* QC Quality Control	Memo	0.00	3724		19		

NCR:	Yes	1	Nο

DQA: \_\_\_\_\_ Date: \_\_\_\_

NCR: Y	es / No				WORK ORDER NON-	CONFO	RMANCE / UI	PDATE			
<del> </del>				· · · · · · · · · · · · · · · · · · ·	-	<del></del>			QA Closed:	Date	:
Work Orde	r·				DISPOSITION			AGAINST DE	PARTMENT	PROCESS	
WOIK Olde	'·			<del></del>	Rework	7 <b> </b>	Skid-tube	Crosstube		Water Jet	Engineering
Part N	0.				Scrap	1 1	Machining	Small Fab	Pro	d. Eng. Coor.	Quality
	··				Use-as-is	The	rmoforming	Finishing	1	re/Packaging	Other
NCR N	0.				Work Order Update	1	Large Fab	Composite		Supplier	
Root					iption of work order update	Initial	1	ction	Sign &		
Cause	Date	Step	Qty	-	or Non-conformance	Chief E	ng Des	cription	Date	Verification	QC Inspector
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Operator	_										
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Other											
Process			·			ļ					
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Jnapproved		<u> </u>				<u> </u>					
				<u></u>		AULT CA	TEGORY				
Landin	g Gear				General				1	ļ-	<b>–</b>
1	Bending				Bend	Grai		<u> </u>	Ovalized	L	Pressure/Forced
1	Centre N	ot Conce	ntric to (	D/S	BOM/Route	<b>├</b> ──┤	ware	ļ	Over/Under	<u> </u>	Temperature/Cure
Ļ	Cracks			<u></u>	Broken/Damaged	<b>—</b>	ection Incomplete	_	Part Incorre		Weld
<u> </u>	Crushed/	'Crimped	-		Burrs	$\vdash$	uctions Incomplete	e/Unclear	Part Lost/M	issing	Wrong Stock Pulled
[	Cuffs				Contamination	$\mathbf{H}$	ntenance	<u> </u>	Part Moved		
L	Heat Trea	at			Countersink	$\vdash$	beled		Positioned \		_
Ĺ	Inspectio	n Strip in	Tube		Cut Too Short	Misr			Power Loss,	'Surge	Other
	Ripples in	n Bend			Drill Holes	Offse					
	Torque V	Vaves in I	Extrusio	ո 📙	Drawing	Out	of Calibration				
	Turning 9	Sequence			Finish	Out	of Sequence				
	Wave/Tv	vist in Tul	be	1	Folio	Outs	ide Dimensions				

Work	Order ID	100953

\*100953\*

Page 3

May-01-13 7:08:53 AM \*N900040100\* Accept Item ID: D4011-5 Setup Start Revision ID: Stop Item Name: Clamp, Short \*12\* 4/30/13 **Start Qty: 12.00** Start Date: **Cust Item ID:** Req'd Qty: 12.00 Required Date: 4/30/13 **Customer:** Reference: Run Process Plan: Date: **Tooling:** Date: Approvals: Stop Date: SPC (Y/N): Date: QC:

Sequence ID/ Set Up/ Tool ID Tool # Plan Reject Operation Accept Reject Insp. Qty Qty Work Center ID **Description Run Hours** Code Number Stamp Identify as per dwg & Stock Location: 5745 0.00 150 \*150\*

Packaging Memo Packaging

0.00

DX M.W. 13-07-24

160 QC21- Final Inspection - Work Order Release 0.00

> 0.00 Memo

Quality Control

\*16**0**\* OC.

MC5 13-07-26 MF

												DQA:	Date	:: _	
NCR:	/es	/ No				WORK ORDER NON-O	O	NFORM	MANCE / UP	DATE		-		_	
												QA Closed:	Date	::	
)						DISPOSITION				AGAINST [	)EI	PARTMENT/	PROCESS		
Work Orde	21.					Rework	1		Skid-tube	Crosstube	$\neg$		Water Jet	٦	Engineering
Part I	do.					Scrap	1 1		Machining Vacant	Small Fab	$\dashv$	Proc	d. Eng. Coor.	$\dashv$	Quality
raiti	NO.					Use-as-is	1		noforming	Finishing	ㅓ		e/Packaging	$\dashv$	Other
NCR I	No.					Work Order Update	1		Large Fab	Composite	ᅱ	1100,000	Supplier	$\dashv$	
						' -	,		٠ ــــا	٠ ـ ـ					
Root					Descri	iption of work order update		nitial	Ac <sup>-</sup>	tion		Sign &		Т	
Cause		Date	Step	Qty		or Non-conformance	Ch	ief Eng	Desc	ription		Date	Verification	┙	QC Inspector
Doc/Data															
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Operator														-	
Material			ļ											١	
Setup															
Other													e.		
Process				· .											
Supplier															
Training														ı	
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						F	AUL	T CATE	GORY						
Landi	ng (	Gear				General	<b></b>	,		F		1	_	_	
	_	Bending				Bend		Grain		ļ		Ovalized		$\dashv$	Pressure/Forced
	L	Centre No	ot Conce	ntric to	o/s	BOM/Route		Hardwa	re			Over/Under	tolerance	_	Temperature/Cure
		Cracks			L	Broken/Damaged		Inspect	ion Incomplete	Į		Part Incorred	ct _	$\Box$	Weld
		Crushed/	Crimped.			Burrs		Instruct	ions Incomplete/	Unclear		Part Lost/Mi	ssing		Wrong Stock Pulled

Maintenance

Out of Calibration

Out of Sequence

Outside Dimensions

Mislabeled

Misread

Offset

Part Moved
Positioned Wrong

Power Loss/Surge

Other

Contamination

Countersink

Cut Too Short

Drill Holes

Drawing

Finish

Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Cuffs

Heat Treat

Inspection Strip in Tube

Torque Waves in Extrusion

May-01-13 7:08:53 AM

Work Order ID:

100953

Parent Item:

D4011-5

Parent Item Name:

Clamp, Short

**Start Date:** 4/30/13

Required Date: 4/30/13

**Start Qty: 12.00** 

Required Qty: 12.00

Comments:

IPP RevA: revB as per dwg 09.11.18 DD verified by:JLM HOUSE DD verified by:EC

IPP Rev:B

11.05.19 MADE IN

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M304S14GA 304SS sheet .080		Purchased	No			100	sf	28.1400	0.053	0.6694737	0.7	.Ae	13.07.23

<b>Location</b>	Loc Qty	Loc Code	
MAT020	28.14		
117933	4.5		
119276	23.64		\$19276

							DQA:	Date:	
NCR: Ye	es / No			WORK ORDER NON-C	ONFORM	//ANCE / UPDATE	QA Closed:	Date:	
Work Order	r:			DISPOSITION		AGAINST	DEPARTMENT		·
Part No	0			Rework Scrap Use-as-is	,   r	Skid-tube Crosstube Machining Small Fab noforming Finishing	Pro	Water Jet od. Eng. Coor. re/Packaging	Engineering Quality Other
NCR No	0		<del></del> -	Work Order Update		Large Fab Composite	<b>—</b>	Supplier	
Root				Description of work order update	Initial	Action	Sign &		:
Cause	Date	Step	Qty	or Non-conformance	Chief Eng	Description	Date	Verification	QC Inspector
Ooc/Data Equip/Tooling Operator									
Material	_	}							
Setup	_								
Other									

## **FAULT CATEGORY Landing Gear General** Bend Ovalized Pressure/Forced Grain Bending BOM/Route Over/Under tolerance Temperature/Cure Centre Not Concentric to O/S Hardware Weld Broken/Damaged Inspection Incomplete Part Incorrect Cracks Wrong Stock Pulled Crushed/Crimped. Burrs Instructions Incomplete/Unclear Part Lost/Missing Part Moved Cuffs Contamination Maintenance Mislabeled Positioned Wrong Countersink Heat Treat Power Loss/Surge Other Inspection Strip in Tube Cut Too Short Misread Drill Holes Ripples in Bend Offset Out of Calibration Torque Waves in Extrusion Drawing Out of Sequence Turning Sequence Finish Wave/Twist in Tube Folio Outside Dimensions

Process
Supplier
Training
Unapproved

DART AEROSPACE LTD	Work Order:	100953
10		
Description: Clamp, Short	Part Number:	D4011-5
Inspection Dwg: D4011 Rev: B		Page 1 of 1

## FIRST ARTICLE INSPECTION CHECKLIST

X First Article Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
Ø0.257	+0.006/-0.001	.256	-			JKM - UI
0.375	+/-0.010	, 375	_		V	
0.75	+/-0.030	.75	-		V	
1.00	+/-0.030	1,02	-		V	
0.13	+/-0.030	,13	_		V	
1.54	+/-0.030	1,54	_		V	
4.49	+/-0.030	449	-		V	
6.770	+/-0.010	6.770	_		V	
7.58	+/-0.030	7.51	-		v	
0.080	+/-0.010	,074	-		V	
				7	,	
· · · · · · · · · · · · · · · · · · ·						
					·	
						We have the second seco

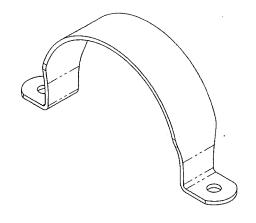
Measured by: Ar Audited by: Prototype Approval: N/A

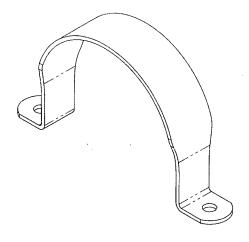
Date: 13.07.23

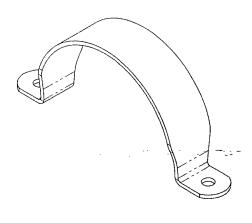
Date: 13.23

Date: N/A

Rev	Date	Change	Revised by	Approved
Α	09.12.14	New Issue	KJ A	111/







D4011-1 CLAMP, SHORT

D4011-3 CLAMP, LONG

D4011-5 CLAMP, SHORT (OEM)

NOTES:
1) MATERIAL: AISI 304/316 STAINLESS STEEL SHEET ANNEALED 2B FINISH, 14 GAUGE (0.078 THICK)
PER AMS 5513 (304) OR 5524 (316) OR ASTM A240 OR ASME SA240
REF. DART SPEC. M304514GA
2) FINISH: NONE
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
6) IDENTIFICATION: IDENTIFY WITH DART P/N "D4011-X" USING FINE POINT PERMANENT INK MARKER
7) WEIGHT: 0.02 ibs EACH

10 0953 MLS

13-05-03

В	SHORTE REASON INSTALL	N HEIGHT ON PROVIDE N ATION ON O	МВ	09.11,11		
Α.	NEW IS:	SUE	MB	09.10.21		
REV.			DESCRIPTION	BY	DATE	
DESIGN B			DART AEROSPACE LTD			
DRAWN		4	HAWKESBURY, ONTARIO, CANADA			
CHECK	(ED	A35	DRAWING NO.		REV. B	
MFG. APPR.		N.	D4011		SHEET 1 OF 4	
APPROVED		10	TITLE		SCALE	
DE AP	PR.	-#	CLAMP		NTS	
DATE	09.1	1.11	COPYRIGHT © 2009 BY DART AEROSPACE LTD  THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLED ON THE SYMPASS CONDITION THAN IT IS  NOT TO BE USED FOR NOT AND CONFIDENTIAL OR CONSUMENT TO ANY OTHER PERSON WITHOUT			

